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The Education Services Industry in Canada

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Research papers

The Education Services Industry in Canada

Johanne Plante
Statistics Canada

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Table of Contents

Acknowledgements	4
Foreword	6
1. Introduction	7
2. Concepts, definitions and classification systems	9
3. The Business Register	13
4. What kind of employers provide employee training?	15
5. Who takes training?	18
6. Foreign students in Canada	21
7. The labour market	25
8. Macro-economic performance measures	28
9. Conclusions and recommendations	34
Appendix A: North American Industry Classification System: Educational Services Sector	39
Appendix B: Classification of postsecondary institutions	45
Bibliography	47
Endnotes	48
Cumulative Index	49

Foreword

The private, for-profit Education Services sector plays a key role in developing the knowledge and skills of the Canadian labour force. As awareness of the importance of lifelong learning has increased, so has interest in the contribution of private, for-profit Education Services to increasing skills and knowledge, productivity, innovation and competitiveness.

Little statistical information, from either the supply or demand side of the Educational Services sector, is available in Canada. Several federal and provincial ministries, academic researchers and industry participants have expressed a need for more comprehensive statistical information on the sector. As the national statistical agency, Statistics Canada has an interest in filling these information needs.

This report provides an overview of the Education Services sector in Canada. Drawing on available sources of statistical information, it also looks at whether it is possible to shed light on the size and characteristics of the private, for-profit Education Services sector.

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1. Introduction

Increasingly, intellectual capital is displacing natural resources as a primary determinant of economic strength and competitiveness (Industry Canada 1998).

> *"Education is now the main barometer of competitiveness among countries – more than capital, and more than technology. More than ever, learning is intimately linked with the wealth and wellbeing of nations. Our environment is making new demands on all of us, especially in the way we think about education. It has become a linchpin in planning for Canada's future."*
>
> *Jean C. Monty, President and CEO of BCE Inc.*
> *Speech delivered at Collegium of Work and Learning,*
> May 2, 2000.

Workers and their skills and imagination are the foundation of an innovative and productive economy. With declining fertility, an aging workforce and massive retirements, Canada risks shortages of highly skilled labour in the years ahead (Government of Canada 2002).

To meet these challenges and remain internationally competitive, many believe that Canadians must engage in lifelong learning and acquire new skills, through continuing education and workplace skills development. They must also take advantage of the new instructional tools offered by cyberlearning.

The private, for-profit Education Services sector is a key player in meeting Canada's emerging labour market needs. By providing specialized training services alongside traditional public education, this sector is playing an essential role in the transfer of knowledge and skills and in human capital development. By exporting its services, the private, for-profit Education Services sector contributes to meeting training needs in countries with developing economies; it helps those countries reach their objectives with respect to jobs and economic growth.

With some exceptions, data on education and training focus mainly on the public sector. However, this emphasis on public sector education presents an incomplete picture of the variety of learning contexts that exist in Canada and the contribution that they each make to the Canadian socio-economic fabric (Shipley 2002).

Public education

Public education includes all publicly funded programs administered and accredited under a provincial Department or Ministry of Education in Canada (elementary/secondary, CEGEP, college, trade/vocational and university). Public education also includes programs under a provincial Ministry of Labour (apprenticeship certificates) or a federal department (for example, schools for the hearing or visually impaired, the National School of Ballet and schools operated on Canadian military bases overseas). Teaching guidelines and standards, curriculum development, program evaluation and completion requirements are set by the appropriate ministry or an authoritative body approved by the ministry (for example the senate of a university). Public education programs are provided on a not-for-profit basis. Costs associated with providing these programs are, for the most part, covered by federal, provincial and municipal tax dollars, grants from philanthropic foundations, private donations and, at the postsecondary level, through student fees.

The accreditation received through one of these publicly funded programs is recognized by the Canadian public and by employers as denoting that the recipient has accomplished a certain level of skill and knowledge. With certain limitations, accreditation is transferable within a province, between provinces, nation wide and even worldwide (Shipley 2002).

It is now recognized that education and learning are no longer the sole domain of the young, that learning takes place across the life cycle and that there are a wide variety of learning contexts that contribute to the skills and knowledge of the Canadian public.

There is little statistical data available on either the supply or the demand side of the private, for-profit Educational Services sector in Canada. This lack of information inhibits the ability to create relevant and appropriate policy. It also leaves companies operating in the sector, who wish to better understand the context in which they function and position themselves effectively in it, without a solid base from which to make important decisions.

The main objectives of this report are to bring together available data on the Education Services sector in Canada and to assess data gaps.

Drawing on different sources of statistical information, the following sections explore questions of interest, such as: What are the characteristics of providers of Education Services in Canada? Who are the users? What are the worker characteristics in the Education Services sector? Do official statistics offer any useful performance measures?

However, before we can evaluate this sector's contribution from a social and economic standpoint, it is essential to understand its size and complexity, and to spell out the concepts and definitions used in this study.

2. Concepts, definitions and classification systems

Many terms are used to describe the area of activity that is the topic of this report. To avoid confusion, and to underscore the importance of aligning our approach with accepted classification standards, the nomenclature of the North American Industrial Classification System (NAICS) is observed throughout this report. Although the current version of NAICS may not meet all needs, there are definite advantages – coherence, efficiency, access to more data – of using standard classification systems and tools to their fullest. NAICS is just one of the standard classification systems used in this report. Also key is the National Occupational Classification System for Statistics (NOC-S).

2.1 How Education Services are positioned in standard classification systems

2.1.1 North American Industrial Classification System (NAICS)

Under NAICS, establishments are grouped into classes according to the similarity of production processes, that is, the similarity of input structures, labour skills, etc. (Statistics Canada 2003a).

As defined by NAICS 2002, the Educational Services sector (NAICS 61) comprises establishments whose primary activity is education, whether public, not-for-profit or for-profit. Table 2.1 shows the current structure of the Educational Services sector in Canada according to this system. (*See Appendix A for a more detailed description.)*

Table 2.1

Educational Services sector

NAICS 61	Education Services
6111	Elementary and Secondary Schools
6112	Community Colleges and CEGEPs
6113	Universities
6114	Business Schools and Computer and Management Training
6115	Technical and Trade Schools
6116	Other Schools and Instruction
6117	Educational Support Services

Source: *NAICS 2002, Statistics Canada 2003a.*

2.1.2 National Occupational Classification for Statistics (NOC-S)

Statistics Canada's occupational classification since 2001 is called the National Occupational Classification for Statistics 2001 (NOC-S 2001). This classification provides a complete listing of all the categories under which Canadian jobs are classified and their descriptions. The first use of the NOC-S 2001 was in the 2001 Census of Population. NOC-S is used across household surveys to classify information on the type of work done.

The main occupations related to education (regardless of the sector in which the work is normally carried out) are shown in Table 2.2.

Table 2.2

Occupations related to education

NOC-S	Education occupations
E111	University professors
E112	Postsecondary teaching and research assistants
E121	College and other vocational instructors
E131	Secondary school teachers
E132	Elementary school and kindergarten teachers
E133	Educational counsellors
E213	Employment counsellors
E214	Instructors and teachers of persons with disabilities
E215	Other instructors
E217	Early childhood educators and assistants

Instructors and teachers of persons with disabilities teach children and adults with physical and developmental disabilities using communication techniques, such as Braille or sign language, and rehabilitation skills to increase independence and mobility. They are employed in rehabilitation centres, specialized educational institutes and throughout the elementary and secondary school system.

2.2 Public versus private establishments

NAICS makes no distinction between public, not-for-profit and for-profit establishments. The following typology has been proposed by Statistics Canada's Centre for Education Statistics for postsecondary institutions:

- *Public establishments* are motivated by the wish of providing services for a collective benefit. These establishments do not operate for a profit, and at least half of their operating or capital funding is provided by government or a government body.
- *Private, not-for-profit establishments* are motivated primarily by the wish to provide a service. They may be wholly owned by another non-profit organization such as a religious body.
- *Private, for-profit establishments* are motivated primarily by the intent to make a profit for the individuals or shareholders who control the establishment. The profit may be paid to those individuals or shareholders in either regular or irregular payments and may be in the form of payments from operating income or as a capital gain.

Appendix B presents further detail on this typology.

Catalogue no. 81-595-MIE2005033

For present purpose, the establishments of interest are those whose primary activity is in the Educational Services sector, and that are operating on a private, for-profit basis or, more briefly, the private, for-profit Education Services sector.

2.2 Public policy context

The Industry Canada perspective (1998) reflects existing and anticipated policy needs. The Education Services sector is seen as a heterogeneous sector made up of establishments and organizations engaged in the delivery of education services mainly on a fee or contract basis *for profit*. These services include the private, for-profit activities of public institutions and community-based organizations, which often operate on a cost-recovery basis[1]. There are four components within the industry:

- Firms specializing in education and training programs and their products and services such as courseware, curriculum design, train-the-trainer programs and training needs assessments
- Businesses in other industrial sectors (for example, accounting, engineering, management consulting and telecommunications) that provide education services either as a supplement to their main product or service line or on a stand-alone basis
- Private schools and training institutes
- Private, for-profit activities of public education institutions such as colleges, universities and CEGEPs (as opposed to their degree and diploma-granting activities)

In recent years, the sector has undergone profound changes with the introduction of new learning media—notably software and courseware—as well as multimedia programs and interactive programs supporting computer-based training. Canada's telecommunications infrastructure has enabled Canadian training service providers and multimedia companies to work with content suppliers to build leading-edge e-learning applications. Learners can access training through technologies that use the Internet, e-mail, CD ROMs, DVDs, and satellite and cable TV (Industry Canada 2002).

The increasing use of information and communications technologies by Canadian organizations and households may stimulate domestic growth of the e-learning sector in Canada. According to the Survey of Electronic Commerce and Technology, more than half (55.7%) of firms provided training to their employees in response to technological change in 2002 (Statistics Canada 2004a).

For Industry Canada (1992), education services providers include two types of suppliers:

- Specialists refer to establishments providing private, for-profit education services as a primary business activity
- Other providers refer to establishments offering training services as a secondary activity (e.g. software development firm providing training on its products)

If the NAICS-based approach is compared to the vision from Industry Canada, a few major differences emerge. First, the main focus of the Industry Canada view is on for-profit activities, whether the establishment as a whole is considered public,

not-for-profit or for-profit. An example is privately-funded research and development activities occurring in the setting of a public university.

Second, Industry Canada is interested in education services that are offered by an establishment whose primary activity is something quite different.

These requirements are not at odds with the approach used in NAICS; they reflect a need for greater detail. While it is important to keep this requirement in mind, the approach advocated here is to begin with NAICS and the standard concepts used to classify establishments as public, not-for-profit or for-profit, and to build on that foundation in order to meet the need for greater detail.

The interests expressed above intersect with the needs of other federal departments, including International Affairs Canada, the Department of Foreign Affairs, Citizenship and Immigration Canada and Human Resources and Skills Development Canada. Policy objectives include: developing external markets for Canadian educational products (both services delivered abroad and on-line education services); attracting foreign students to Canada; developing and measuring worker skills and developing student outcome and other performance measures.

2.3 Target student population

The scope of the study can be considered from the perspective of the age and stage of life of the student population targeted by private, for-profit educational services in question. There seem to be many views:

- adults who have finished initial education and who are receiving further training or education (the traditional notion of adult education)
- foreign students (postsecondary)
- students at all levels – elementary, secondary and postsecondary – in private, for profit institutions that are offering parallel services to those offered by public institutions (i.e., private schools that are accredited to offer high school diplomas, university degrees or other credentials that are normally obtained in the public system)

Because of the exploratory nature of this report, the approach taken is to cast the net loosely to include data sources that offer insights into some aspect of private, for-profit education services.

Catalogue no. 81-595-MIE2005033

3. The Business Register

The most complete list of education and training institutions in Canada is Statistics Canada's Business Register.

The Business Register is a structured list of businesses that produce goods or render services in Canada. It includes incorporated and unincorporated businesses, private, for-profit enterprises, non-profit organizations, religious bodies, government departments and government institutions operating in all sectors.

Included in the Business Register are all Canadian businesses which meet at least one of the three following criteria:

- An employee workforce for which the business submits payroll remittances to Canada Revenue Agency (CRA)
- A minimum of $30,000 in annual sales revenue
- Incorporated under a federal or provincial act and having filed a federal corporate income tax form within the past three years

One of the main functions of the Business Register is to serve as a survey frame for Statistics Canada's business surveys. To ensure complete, unduplicated coverage of the establishments that make up the Canadian economy, rigorous standards are applied in identifying establishments and classifying them to particular industries.

Distinction between *enterprise, company, establishment* and *location*

The **enterprise** is an independent unit for which a complete set of financial statements is available. The enterprise directs and controls the allocation of resources relating to its operations, and for which consolidated financial and balance sheet accounts are maintained. In the case of most small- and medium-sized businesses, the enterprise and the establishment are identical. Large and complex enterprises, however, consist of more than one establishment, which may belong to different industries under NAICS.

The **company** is the level at which operating profit can be measured, for which income and expenditure accounts and balance sheet information are maintained from which operating profit and the rate of return on capital can be derived. An enterprise may include one or more companies.

The **establishment** is the level at which the accounting data required to measure production are available. The establishment is the most homogeneous unit of production for which the business maintains accounting records from which it is possible to assemble data on the gross value of production and labour and capital used in production.

At the lowest level of a firm's operating structure are production units, such as plants, factories, farms, mines, warehouses, stores, airports or movie theatres. The **location** is a producing unit at a single geographical location where economic activity is conducted and for which, at a minimum, employment data are available.

Information on businesses is obtained from different sources, such as CRA administrative files and surveys conducted by Statistics Canada. The Register contains data such as the name and address of the business, the number of employees, the industry code, the business number (assigned by CRA), information on the structure of the business (the legal and operational organization), revenue and contact information on survey respondents.

About 1% of businesses in the Business Register are in the Educational Services sector

The number of businesses included in the Business Register stood at just over 2 million in June 2003. The Educational Services sector (NAICS 61), including public, not-for-profit and for-profit establishments, accounted for 20,000 or slightly less than 1% of this number.

Because the Business Register has not been used to conduct surveys in the private for-profit education sector, it has not had the benefit of the on-going quality improvements that characterize other sectors where such surveys occur[2]. For example, the industry information is based on what is reported in tax data and this information may not always be accurate. This caveat must be borne in mind in interpreting the following results: the Business Register was designed not as a stand-alone analytical data base but as a dynamic roster with updates coming not only from tax data but also from direct surveys of establishments.

For the most part, providers of Education Services tend to be small, newer businesses. Just over a third of the establishments in this industry had 5 employees or less (Table 3.1). Only 4% of establishments had more than 100 employees. The Business Register had no information on the size of 43% of the businesses in this industry since those establishments did not maintain payroll records (the work force of these establishments may consist of persons on contract, family members or owners of the business).

Table 3.1

Distribution of firms in Educational Services sector by firm size

Firm size	%
5 employees or less	33.5
6 to 10 employees	7.0
11 to 25 employees	7.7
26 to 50 employees	2.7
51 to 100 employees	1.8
101 to 500 employees	2.2
More than 500 employees	2.1
Size unknown	42.8

Source: *Business Register, special tabulation.*

4. What kind of employers provide employee training?

Some studies show that rapid changes in technology and intensification of international competition have substantially increased the importance of innovation. Within a firm, the process leading to innovation requires a high level of human capital among workers. In order to participate fully in this process, workers must not only acquire strong basic knowledge through the education system but they also need opportunities to acquire training in the labour market (Statistics Canada and Human Resources Development Canada 2003). The private, for-profit Education Services sector plays a key role in developing the knowledge and skills of the Canadian labour force. Training taken within the firm can extend the knowledge acquisition process and help workers to adapt previously acquired skills leading to improvement in productivity, innovation and competitiveness.

Training can take place in the classroom and in a location separate from the workplace. Alternatively, training may use an informal learning process and take place on the job. Classroom training (sometimes called formal training) is defined as training activities with a predetermined format, predefined objectives, specific content and progress that can be monitored or evaluated. On-the-job training is usually given during work hours and at the workplace.

Even if the Workplace and Employee Survey (WES) does not distinguish between training received from public or private, for-profit providers, it is unique in that it gathers detailed and linked data on employers and their employees, thereby facilitating a more complete analysis of the determinants of training than was previously possible.

Workplace and Employee Survey (WES)

The *Workplace and Employee Survey (WES)* is a longitudinal survey of employers and their employees. The WES has two parts: (1) a survey of establishments collecting data on organizational changes, training and other human resources practices, business strategies and labour turnover within the workplace; and (2) a survey of the employees in these same workplaces, collecting data on wages, hours of work, the type of work performed, human capital, use of technology and training. This results in a rich source of interrelated information on workplaces and their employees.

WES includes several questions on training. The employer questionnaire asks about training provided or funded by the location, while the employee questionnaire asks about training taken.

WES provides estimates on the proportion of locations supporting training – results on the *supply facet* of Education Services – with an explicit focus on services employers offer to their own workforce and not to the public in general.

Many factors influence the participation of a business location in training. Among them are innovation and technology, business strategies, competition, size and industry, region, unionization and workforce characteristics. According to a study by Statistics Canada and Human Resources Development Canada (2003), the proportion of locations supporting training increases with the number of employees, for both classroom and on-the-job training (Table 4.1).

The finance and insurance sector and the communication and other utilities sector have the largest proportion of business locations supporting training, while real estate services and construction have the lowest. Quebec has the largest proportion of locations supporting classroom training among all provinces.[3] However, Quebec ranks behind Ontario, the Prairies and British Columbia for on-the-job training.[4] The proportion of locations supporting training is higher among locations that have innovated or introduced a new software or technology, for both types of training.

Table 4.1

Proportion of locations supporting training[1], by selected location characteristics

	Classroom (1)	On-the-job (2)	Ratio (1)/(2)	Total
	%			%
Size of business location				
Fewer than 20 employees	26	40	0.65	49
Between 20 and 49 employees	62	81	0.77	89
Between 50 and 99 employees	77	84	0.92	93
100 or more employees	85	89	0.96	97
Industry				
Natural resources exploitation	34	39	0.86	50
Manufacturing	34	51	0.66	59
Construction	24	37	0.64	43
Transportation, warehousing and wholesale trade	33	46	0.70	53
Communication and other utilities	42	54	0.78	64
Retail trade and consumer services	25	47	0.53	54
Finance and insurance	59	64	0.93	78
Real estate, rental, leasing operations	19	27	0.72	34
Business services	29	40	0.71	49
Education and health services	40	41	0.95	57
Information and cultural industries	37	53	0.70	62
Region				
Atlantic	23	35	0.65	41
Quebec	35	35	0.99	49
Ontario	33	50	0.65	58
Prairies	31	48	0.65	57
British Columbia	27	49	0.54	57
Innovation				
Has innovated	42	58	0.73	68
Has not innovated	21	33	0.63	42
Technology				
Has introduced a technology/software	46	60	0.77	70
Has not introduced a technology/software	25	39	0.64	48
Total	31	45	0.69	54

1. Locations providing or funding training for at least one employee during a 12-month period.

Source: *Workplace and Employee Survey, Statistics Canada and Human Resources Development Canada 2003, Table 1.*

This "supply-side" look at training uses one measure of incidence, namely the proportion of workplaces providing training for at least one employee during a given 12-month period. Because of WES' unique character, it also offers insights on worker participation rates in training, which is more of a 'demand-side" measure. Information on worker participation in training is presented in the following section with results from the Adult Education and Training Survey (AETS).

5. Who takes training?

The ability and willingness of adults to continue learning throughout their lives has been identified as a critical element in Canada's economic future. The need for new skills in the economy has had a profound impact on jobs, in most, if not all, industries and occupations. Traditionally, many of these new skills would have been provided by "new" workers, both young adults and immigrants, entering the labour force. However, the demographic reality is that smaller cohorts of young workers will be entering the workforce and, as the work force ages, the potential for skill shortages grows. The "upskilling" of workers already in the labour force is widely seen as an important measure to meet these needs (Statistics Canada and Human Resources and Skills Development Canada 2004).

Results from the latest Adult Education and Training Survey (AETS) show that one out of every three working adults participated in job-related education and training in 2002. Participation, however, was unequal across specific groups of workers. Previous cycles of the AETS and similar surveys conducted in other countries, also point to two groups of workers – the youngest and the most highly educated – as most likely to participate in training and education, with or without the support of their employer.

Adult Education and Training Survey

Data from the Adult Education and Training Survey (AETS) are used to analyze the characteristics of supply and demand as well as national and provincial trends in participation in adult education and training. Distinctions are made between education and training related to employment and education and training pursued out of personal interest (Statistics Canada and Human Resources Development Canada 2004). The AETS has been conducted every 4-5 years since the early 1980s, under the sponsorship of Human Resources and Skills Development Canada.

Employers play a vital role in the training and development activities of their workers – seven out of every ten participants received some form of training support from their employers in 2002. This proportion, however, has declined since 1997. Lack of money and time were the most common obstacles to participation for all working adults – regardless of their training status. Training experience does seem to influence awareness of training options and benefits though, as greater proportions of training participants reported unmet training wants or needs than did non-participants.

The AETS shows that firm size is a key determinant of participation in training. Larger firms are more likely to have a human resources department as well as education and training programs and courses. Larger firms have more opportunities for staff to participate in such programs and courses and more financial resources available to cover costs. They also face lower risks of losing trained employees to another firm (Betcherman, McMullen and Davidman 1998).

Catalogue no. 81-595-MIE2005033

The information collected in Canada confirms that employees in large firms have higher rates of participation in training (participation rates) than those in small and medium-sized firms (Table 5.1). The participation rates of adult workers in employer-supported formal job-related training are considerably higher in firms with 100 employees or more than those with fewer than 100 employees. The data also show that training rates were highest in the public administration sector as well as the utilities and finance, insurance, real estate and leasing sectors (Statistics Canada and Human Resources and Skills Development Canada 2004).

Table 5.1

Participation rate in employer-supported formal job-related training for the adult work force[1], 1997 and 2002 (%)

	1997	2002
Total participation rate	22.4	25.0
Firm size		
Less than 20 employees	14.6	18.5
20 to 99 employees	20.8	25.1
100 to 500 employees	32.2	32.1
Over 500 employees	31.8	37.2
Industry		
Goods producing industries	18.2	18.1
Agriculture	8.0**	7.3**
Forestry, fishing, mining, oil and gas	24.4	26.9
Utilities	38.0*	46.4*
Construction	14.1	12.8
Manufacturing – durables	20.0	20.4
Manufacturing – non-durables	17.3	17.1
Service producing industries	24.3	27.7
Wholesale trade	19.7	20.1
Retail trade	13.2	17.3
Transportation and warehousing	23.2	23.3
Finance, insurance, real estate and leasing	34.5	35.3
Professional, scientific and technical services	24.4	19.6
Management, administrative and other support	10.7*	14.3
Educational services	31.0	42.6
Health care and social assistance	29.6	35.4
Information, culture and recreation	26.1	27.8
Accommodation and food services	6.8*	11.7
Other services	16.3	17.1
Public administration	41.4	50.6

* Coefficient of variation between 16.5% and 25% and are less reliable than unmarked numbers.
** Coefficient of variation between 25% and 33.3% and are very unreliable.
1. Population aged 25 to 64 who were employed at some point during the reference year.
Source: *Adult Education and Training Survey, Statistics Canada and Human Resources and Skills Development Canada, 2004, Table A.4.*

Similar results were obtained from the Workplace and Employee Survey. According to a study conducted by Statistics Canada and Human Resources Development Canada (2003) using WES, training participation, whether classroom or on-the-job, increases with workers' education. However, the differential between the various levels of education is smaller for on-the-job training than for classroom training.

The rate of participation in classroom training reaches a maximum at 40% between 25 and 44 years of age and gradually declines thereafter. In the case of on-the-job training, the peak participation rate of 39% occurs among workers aged 15 to 24. This rate declines after the age of 24 years.

WES mirrors AETS results on training participation rates by firm size (Table 5.2). Also of note, the participation rate of employees in classroom training is higher than for on-the-job training for the vast majority of sectors, although the gap is small in manufacturing and construction. The finance and insurance sector has the largest proportions of employees taking training, while retail trade and private, construction and real estate have the lowest. Finally, innovation and the introduction of a new technology in a location appear to be positively related to employee participation rates in training.

Table 5.2

Proportion of employees taking training, by selected characteristics of locations

	Classroom (1)	On-the-job (2)	Ratio (1)/(2)	Total
	%			%
Size of business location				
Fewer than 20 employees	26	24	1.09	44
Between 20 and 49 employees	31	30	1.03	51
Between 50 and 99 employees	37	39	0.97	59
100 or more employees	48	32	1.48	64
Industry				
Natural resources exploitation	43	30	1.43	62
Manufacturing	35	31	1.11	53
Construction	28	26	1.09	43
Transportation, warehousing and wholesale trade	39	29	1.37	55
Communication and other utilities	52	33	1.60	66
Retail trade and consumer services	23	28	0.81	45
Finance and insurance	59	43	1.35	75
Real estate, rental, leasing operations	30	21	1.44	44
Business services	44	28	1.55	59
Education and health services	45	31	1.48	61
Information and cultural industries	39	30	1.31	56
Innovation				
Has innovated	40	32	1.23	58
Has not innovated	32	26	1.24	48
Technology				
Has introduced a technology/software	40	33	1.23	59
Has not introduced a technology/software	34	28	1.24	51
Total	37	30	1.23	55

Source: *Workplace and Employee Survey, Statistics Canada and Human Resources Development Canada 2003, Table 3.*

6. Foreign students in Canada

Foreign students are of particular interest to the Education Services sector, for several reasons. They are a focus of export market development activities. Canada has a strong English Second Language/French Second Language training capability developed for domestic purposes, but this is also very marketable internationally. Foreign postsecondary students are of interest to both public and private postsecondary institutions to maintain high enrolment levels; the ones who chose to stay in Canada will help to fill expected labour market shortages and, as such, they are of great public policy interest.

6.1 Enrolments in Canadian universities

The Centre for Education Statistics collects information on the number of enrolments in Canadian postsecondary institutions. Results from the Enhanced Student Information System (ESIS) reveal that a large number of foreign students take their postsecondary education in Canada. In the 2001/02 academic year, 53,000 foreign students were attending Canadian universities, about 6% of all students enrolled in Canadian universities that year.

About 40% of foreign students come from Asian countries, followed by Europe (20%) and North America (14%), most of whom are from the United States (Table 6.1). With close to 7,000 students in 2001/02, China accounted for a third of the students from Asia and 13% of the total number of foreign students. About half of all European students (10%) come from France.

The proportion of foreign students has increased considerably since the early 1990s. In 1992/93, there were 37,000 foreign students enrolled in Canadian universities, of a total of 886,000 (4.2%). Over the 1990s, the total university student body declined, to 823,000 in 1997/98, before resuming its upward climb to 887,000 in 2001/02. The number of foreign students also began to slip in the early 1990s, but it bottomed earlier, at 31,000 in 1995/96. In that year, foreign students accounted for just 3.7% of all university enrolments. Since then, the growth has been rapid. In fact, in just three years, from 1999/00 to 2001/02, the number of foreign students enrolled in Canadian universities grew by nearly a third.

In the 2001/02 academic year, more than half of the foreign students enrolled in Canadian universities were registered in programs at the undergraduate level. About 8 foreign students out of 10 obtained a visa to enter Canada for the sole purpose of attending an educational postsecondary institution. Less than 3% had no visa status as they were studying outside Canada (e.g., by Internet). (Table 6.2).

Table 6.1

University enrolments by students' country of permanent residence, 1999/00 to 2001/02

	1999/00	2000/01	2001/02
Enrolments total	848,500	850,500	886,800
Canada	808,000	804,800	834,200
Foreign countries	40,400	45,700	52,600
North and Central America and Caribbean	7,700	8,400	9,500
North America	6,000	6,600	7,500
Central America	100	100	200
Caribbean	1,600	1,700	1,900
South America	1,300	1,300	1,600
Africa	5,900	6,300	7,000
Northern Africa	2,100	2,200	2,500
Central and Southern Africa	3,800	4,100	4,500
Asia	14,300	16,400	20,500
South West Asia	2,000	2,400	3,100
South Central Asia	2,000	2,400	3,000
South East Asia	2,000	2,000	2,200
East Asia	8,300	9,600	12,200
Europe	9,600	10,100	10,800
Northern and Western Europe	6,900	7,200	7,600
Central Europe	1,700	1,900	2,100
Southern Europe	1,000	1,000	1,100
Oceanic	400	500	500
Other	1,300	2,800	2,700

Data subject to revision.

Source: *Enhanced Student Information System, Statistics Canada.*

Table 6.2

University enrolments by immigration status and program level, 2001/02

	Undergraduate	Graduate	Other[1]	Total
Student visa	25,200	13,200	6,900	45,300
Other visa[2]	1,200	1,300	300	2,800
Non-Canadian, status unknown[3]	1,600	1,100	300	3,000
Non-Canadian, no visa status[4]	600	800	100	1,500
Total				52,600

Data subject to revision.

1. Other level includes trade/vocational and preparatory training certificate or diploma and other program level.
2. Other Visa includes students who are in Canada on diplomatic, trade or other missions.
3. Non-Canadian, status unknown includes refugees and other foreign students in Canada whose status is unknown.
4. Non-Canadian, no visa status as student is studying outside Canada (e.g., by Internet).

Source: *Enhanced Student Information System, Statistics Canada.*

Foreign students are not uniformly distributed by field of study. Relative to Canadian students, they are over-represented in mathematics, computer and informatics sciences (9.5% of all foreign students versus 4.9% of Canadian students), in architecture and engineering (12.3% versus 8.4%) and in business management and public administration (19.7% versus 16.0%).

Table 6.3

Distribution of Canadian and foreign university students by program of study, 2001/02 (%)

	Canadian	Foreign
Total	100.0	100.0
Education	8.3	1.8
Visual and performing arts and communication technologies	3.2	2.0
Humanities	14.5	11.9
Social and behavioural sciences and law	15.8	12.6
Business management and public administration	16.0	19.7
Physical and life sciences and technologies	9.1	8.7
Mathematics, computer and information sciences	4.9	9.5
Architecture, engineering and related technologies	8.4	12.3
Agriculture, natural resources and conservation	1.7	1.8
Health, parks, recreation and fitness	9.4	5.6
Personal, protective and transportation services	0.1	--
Other	8.6	14.0

Source: *Enhanced Student Information System, Statistics Canada.*

6.2 Tuition fees paid by foreign students

The Tuition and Living Accommodation Survey (TLAC) collects information on the university tuition and other fees paid by students. The results are weighted by enrolment to represent what the "average student" pays, adjusting for the fact that both fees and enrolment vary by program. In the 2004/05 academic year, Canadian students paid an average of $4,172 in tuition. Foreign students paid $11,903, close to 3 times more. The highest average tuition fees for foreign students were registered in British Columbia universities, at $14,588. The largest relative gap was in Quebec, where foreign students paid on average 6 times more than Canadian students.

Table 6.4

Average university tuition fees paid by Canadian and foreign students, 2004/05 ($)

	Canadian students	Foreign students
Canada	4,172	11,903
Newfoundland and Labrador	2,606	8,269
Prince Edward Island	4,374	7,960
Nova Scotia	5,984	11,078
New Brunswick	4,719	9,215
Quebec	1,890	11,338
Quebec residents	1,682	
Residents of other provinces	4,605	
Ontario	4,960	12,842
Manitoba	3,160	6,399
Saskatchewan	4,894	10,996
Alberta	4,804	11,384
British Columbia	4,735	14,588

Source: *Tuition and Living Accommodation Survey, Statistics Canada.*

6.3 Revenue generated by foreign students

Canada's balance of payments (BOP) provides a measure of transactions—both receipts and payments—between residents of Canada and residents of other countries. Transactions relating to expenditures on postsecondary education are accounted for in travel expenditures compiled by the Culture, Tourism and Centre for Education Statistics Division of Statistics Canada, where travel revenue attributable to foreign students are compared with travel expenditures of Canadians studying abroad. The results are discussed in section 8.3.

7. The labour market

Several data sources provide information on workers in occupations related to education. Three are examined here: the Census, the Labour Force Survey and the Survey of Employment, Payrolls and Hours.

Given the differences in concepts, reference periods and populations targeted by the different surveys, the labour force definition may vary slightly from one data source to the next.

The Census results presented below refer to the *experienced labour force*: persons who worked (as employee or in self-employment) at some time in the 18 months preceding the 2001 Census, so from January 2000 to May 2001 (Statistics Canada 2004c). For this population, the Census collects information on the current or most recent job held.

According to the 2001 Census, just over three quarters of a million people held an occupation related to education.

Workers in education occupations are found not only in the Educational Services sector but in many other industries as well. Nearly a quarter of teachers, instructors and related workers worked in industries other than Education Services (Table 7.1). Occupational groups with noteworthy proportions in sectors other than Education Services include college and other vocational instructors (21%), employment counsellors (89%), instructors and teachers of persons with disabilities (56%), other instructors (25%) and early childhood educators (93%).

The Survey of Employment, Payrolls and Hours (SEPH) yielded substantially the same results, with just over 7 persons in 10 within the Educational Services sector in 2002. According to this survey, the average weekly compensation for employees in the Educational Services sector was $725.27, compared to $681.09 for all industries (excluding unclassified).

Table 7.1

Experienced labour force: Workers in occupations related to education by industry, 2001

Occupations related to education Principal occupation	All industrial sectors	Educational Services sector (NAICS 61)	Health care and social assistance sector (NAICS 62)	Other industrial sectors
Total	778,700	592,600	141,000	45,100
University professors	46,900	46,700	0	200
Postsecondary teaching and research assistants	41,600	37,700	1,200	2,800
College and other vocational instructors	80,100	63,100	1,900	15,000
Secondary school teachers	160,000	158,200	300	1,600
Elementary school and kindergarten teachers	239,000	236,700	500	1,700
Educational counsellors	14,000	12,600	400	1,000
Employment counsellors	15,000	1,600	3,300	10,000
Instructors and teachers of persons with disabilities	23,500	10,400	11,800	1,300
Other instructors	22,300	16,800	700	4,900
Early childhood educators and assistants	136,400	9,000	120,900	6,500

The experienced labour force refers to persons who worked at some time in the 18 months preceding the 2001 Census.
Occupational data were classified according to the National Occupational Classification for Statistics 2001 (NOC-S 2001).
Source: *2001 Census, Statistics Canada.*

The Labour Force Survey (LFS) data below refer to annual average employment estimates. The data show that nearly 8% of Canada's workers were employed in the Educational Services industry in 2003, on an annual average basis (Table 7.2). More than 9 workers in 10 in this industry were hired by an employer in the public sector (e.g., a municipal or provincial government or the federal government, a public agency or service, a Crown corporation or a government-funded institution such as a school, university or hospital). This compares to less than a quarter of the workers in all industries.

Most workers (80%) in the Educational Services sector were employed full-time in 2003, which is similar to the average for all employees (82%). At $40,500, the average annual earning of employees in this industry were almost 20% above the average for all sectors ($34,500).

Table 7.2

Annual average employment estimates and earning, all industries and education services, 2003

	All industries			Education Services		
	Total	Public	Private	Total	Public	Private
Employees	13,300,000	3,000,000	10,300,000	1,000,000	900,000	100,000
Full-time	10,900,000	2,500,000	8,400,000	800,000	700,000	-
Part-time	2,400,000	500,000	1,900,000	200,000	200,000	-
Annual earnings	34,500	41,800	32,400	40,500	41,400	29,900
Full-time	39,500	46,300	37,500	47,300	47,700	40,400
Part-time	12,000	19,500	10,100	19,100	19,800	14,600

Source: *Labour Force Survey, Statistics Canada.*

Catalogue no. 81-595-MIE2005033

The LFS also revealed that the majority of employees (94%) in occupations related to education had a post-secondary degree or diploma in 2003. This compares with slightly less than 55% of employees in all occupations (Table 7.3). At $44,700, the average annual earning of employees in occupations related to education was about 30% higher than the annual earning of employees in all occupations ($34,500).

Table 7.3

Annual average employment estimates and earning, all occupations and occupations related to education, 2003

	All occupations			Occupations related to education		
	Total	Public	Private	Total	Public	Private
Employees	13,300,000	3,000,000	10,300,000	600,000	600,000	100,000
Full-time	10,900,000	2,500,000	8,400,000	500,000	400,000	-
Part-time	2,400,000	500,000	1,900,000	100,000	100,000	-
% with PS degree or diploma	54.9	74.8	48.6	94.0	95.8	86.2
Annual earnings	34,500	41,800	32,400	44,700	45,900	34,500
Full-time	39,500	46,300	37,500	50,700	51,800	40,800
Part-time	12,000	19,500	10,100	24,200	25,000	19,100

Occupations related to education refer to University Professors (E111), Post-Secondary Teaching and Research Assistants (E112), College and Other Vocational Instructors (E121), Elementary / Secondary n.e.c. (E130), Secondary School Teachers (E131), Elementary School and Kindergarten Teachers (E132), School and Guidance Counsellors (E133), Employment Counsellors (E213), Instructors and Teachers of Disabled Persons (E214) and Other Instructors (E215) as per the Standard Occupational Classification[3] (SOC) of 1991.
Source: *Labour Force Survey, Statistics Canada.*

8. Macro-economic performance measures

Stakeholders in the Education Services sector are interested in the contribution that the sector makes to the Canadian economy. While the potential usefulness of such information is obvious, the question cannot currently be answered in a rigorous way. Based on existing data, some limited insights can be gleaned in key areas such as employment, profitability and international trade, all of which may be of some value in a performance measurement context.

8.1 Gross domestic product by industry

It is generally recognized that the best indicator of the contribution the Education Services sector makes to the economy is provided by the gross domestic product (GDP). GDP represents the total monetary value, at market price, of all goods and services produced during a year by an economy[6]. The GDP can be measured either by looking at overall income-based values or overall expenditure-based values.

The Education Services sector, as defined for the purposes of the System of National Accounts, includes two main components: universities (*NAICS 6113*) and educational services (except universities) (*NAICS 6111, 6112, 6114-6117*) (Statistics Canada 2002a).

In 1999-2000, combined public and private expenditures on education totalled $68.6 billion (in 2001 constant dollars), representing 6.6% of total GDP. Public expenditures account for 86% of total expenditures (Statistics Canada and Canadian Council of Ministers of Education 2003).

The GDP by industry relates to establishments classified according to their primary activity. Some insights into the contribution that other industries make to the development of education products can be gleaned from the Input-Output Accounts.

8.2 Input-Output Tables

In the Canadian System of National Accounts, the Input-Output tables have two interrelated accounts: (a) the Industry Accounts; and (b) the Commodity Accounts. The Industry Accounts contain the commodity composition of industry output and its complete costs of production including profits (surplus). The Commodity Accounts, on the other hand, show the supply and disposition of goods and services (Statistics Canada 2002a).

The Input-Output[7] accounting system consists of three tables: input, output and final demand tables. The input tables show the commodities that are consumed by various industries. Output tables show the commodities that are produced by various industries. Final demand tables show the commodities bought by many categories of buyers (consumers, industries and government) for both consumption and investment purposes. These tables allow users to track exchanges of goods and services between industries and final demand categories such as personal expenditures, capital expenditures and public sector expenditures (Statistics Canada 2000).

By examining the supply and disposition of goods and services for the commodity "*educational services*" (Table 8.1), we were able to observe that these services are used by many sectors (*see upper portion of table—"Inputs"*). Educational services include university costs, elementary and secondary school costs, costs for community colleges and CEGEPs and other education costs.

Also, these products are not produced exclusively by the Private Educational Services sector and the Public Administration (GS), which includes educational services provided by public institutions (*see lower portion of table—"Outputs"*). Information and Cultural Industries (*NAICS 51*), Professional, Scientific and Technical Services (*NAICS 54*) are also significant producers of private educational services, as are Non-profit Institutions Serving Households (*NP*). In fact, of the $9.8 billion attributed to educational services in 2001, approximately 16% was produced by industries other than the Private Educational Services sector and the Public Administration. This is also true for many other products related to Educational Services.

Table 8.1

Inputs and outputs by industry for the commodity "Educational Services", 1996 to 2001

Industry	1996	1997	1998	1999	2000	2001
	Millions of dollars					
Inputs (users)						
Total industries	2,470.6	2,709.7	2,600.8	2,458.6	2,652.7	2,710.0
Crop and animal production	0.1					
Forestry and logging	1.6	0.8	0.7	1.0	1.6	1.8
Support activities for agriculture and forestry				0.1	0.1	0.1
Mining and oil and gas extraction	8.8	5.4	4.0	5.9	6.3	7.0
Utilities	5.2	2.8	3.2	4.9	3.3	3.5
Construction	28.1	27.2	24.0	37.3	38.0	42.9
Manufacturing	47.0	43.1	38.5	20.6	12.0	14.8
Wholesale trade	97.2	98.0	98.5	118.1	118.1	125.6
Retail trade	184.8	175.7	198.3	252.6	260.3	265.6
Transportation and warehousing	10.4	14.9	12.3	13.1	13.7	14.2
Information and cultural industries	6.4	5.6	35.6	38.5	41.0	47.3
Finance, insurance, real estate and rental and leasing	43.1	33.2	39.0	173.1	172.8	167.4
Professional, scientific and technical services	8.7	15.0	108.0	147.3	159.9	174.9
Administrative and other support services	16.9	11.1	11.9	19.5	23.3	25.5
Private Educational services	3.2	3.5	3.2	4.9	4.9	4.9
Health care and social assistance	9.4	92.7	83.4	83.8	65.8	65.1
Arts, entertainment and recreation	2.2	2.8	2.1	3.2	3.6	3.9
Accommodation and food services	35.0	35.3	30.5	47.5	54.5	57.2
Other services (except public administration)	2.9	14.6	17.6	21.5	37.5	41.5
Non-profit institutions serving households	1.8	2.2	1.9	2.1	2.2	2.2
Public administration	1,957.8	2,125.5	1,887.8	1,463.7	1,634.1	1,644.7
Outputs (producers)						
Total industries	7,697.3	8,458.7	8,550.5	8,842.2	9,424.3	9,842.3
Information and cultural industries			147.9	180.9	123.9	85.4
Professional, scientific and technical services			244.1	337.2	225.3	201.3
Private Educational services	1,548.5	2,052.3	2,321.5	2,532.1	2,675.8	2,805.6
Non-profit institutions serving households	913.3	946.5	1,103.4	1,196.2	1,264.1	1,294.8
Public administration	5,235.5	5,459.9	4,733.5	4,595.8	5,135.3	5,455.1

Source: Statistics Canada, CANSIM table 381-0013.

8.3 Trade with other countries

The emphasis on human resources development is invariably reflected in increased demand for Education Services in Canada and throughout the world. According to Industry Canada (2002), half of Canadian suppliers are active in international markets for education services. Through export of its educational products and services, the industry contributes to meeting global skills needs, particularly in emerging economies.

Canada's balance of payments (BOP) provides a measure of transactions—both receipts and payments—between residents of Canada and residents of other countries. A balance of payments deficit shows the extent to which Canada is using the resources of the rest of the world for current consumption and investments, while a surplus shows the extent to which Canada is providing such resources to the rest of the world.

There are countless numbers of transactions with non-residents and a large variety of sources are used to trace them. Generally, the statistics are derived from a combination of surveys and other sources that consist primarily of administrative files. The results of surveys conducted by the Balance of Payments Division are combined with survey data and administrative data from other sources within and outside Statistics Canada, supplemented by benchmark estimates and estimates for specific categories.

Services are grouped under four major categories: 1) travel, 2) transportation, 3) private, for-profit services and 4) government services. Services cover a wide and complex variety of transactions on products that are generally intangible in nature (Statistics Canada 2002b).

Unlike goods, services are not separate entities over which ownership rights can be established. They cannot be traded separately from their production. Services are heterogeneous outputs produced to order and typically consist of changes in the conditions of the consuming units realized by the activities of producers at the demand of the consumers. By the time their production is completed they must have been provided to the consumers (Statistics Canada 2002b).

Much of the data on services, especially for travel and private, for-profit services, are drawn from surveys conducted annually or more frequently. Information concerning imports and exports of private, for-profit Education Services are largely drawn from the comprehensive annual survey of international service transactions (Balance of Payments Division), which covers some 3,000 firms in Canada. For-profit Education Services covers charges for employee training and development; also covers such services to the educational market as testing, consulting and the development and delivery/adaptation of course materials and systems. Educational equipment sales and replications of course material for general sale are excluded. Fees incurred for attending full-time university and college programs are beyond the scope of this survey and are also excluded. Table 8.2 shows Canada's receipts and payments in its trade with foreign countries in private, for-profit Education Services. According to this survey, receipts from the sale of private, for-profit Education Services abroad in 2003 were two times greater than foreigners' expenditures for this type of service, resulting in a surplus of $105 million.

Table 8.2

Private, for-profit Education Services, 1996 to 2003

	Exports	Imports	Balance
		Millions of dollars	
1996	117	34	83
1997	160	43	116
1998	196	62	133
1999	220	64	157
2000	228	57	171
2001	210	63	147
2002	179	53	127
2003	187	82	105

Source: *Custom tabulation, Balance of Payments Division, Statistics Canada.*

However, the survey has some limitations when it comes to evaluating the private, for-profit transactions of a specific sector such as Education Services. Since the main objective of the survey is to measure private, for-profit services for some twenty-six separate categories, it is usually easier to identify the service producers than the service consumers. Furthermore, it is fairly difficult to identify new firms dealing in transborder services as they are no official sources listing those involved in such transactions.

It should also be noted that it is difficult to measure services available on the Internet, since the transactions are harder to trace.

As regards to transactions relating to expenditures on postsecondary education, these are accounted for in travel expenditures. The Culture, Tourism and Centre for Education Statistics Division of Statistics Canada compiles the basic Canadian travel statistics and, more specifically statistics on education-related travel[8]. Receipts and payments cover students' expenditures on tuition and rent and the personal expenditures of students enrolled full-time in university and college programs. However, a few expenditures for postsecondary education may remain in general travel expenditures, including expenditures for full-time programs of less than one year. In some cases, travellers would appear to report as general travel expenditures the expenses they incurred for courses taken for private, for-profit or personal purposes. The education series also does not include the expenditures of international students at the primary and secondary levels. As with health-related expenditures, education expenditures are conservative estimates of these activities (Statistics Canada 2002b).

Table 8.3 shows that travel expenditures for postsecondary education are a net source of revenues for Canada. The $363 million surplus in 2003 was the highest in eleven years ($489 million surplus in 1992). It is attributable to a fourth year of growth of receipts from foreign students in Canada; by contrast, the corresponding expenditures for Canadians abroad declined after a long period of growth.

Table 8.3

Personal travel – Education-related, 1993 to 2003

	1993	1994	1995	1996	1997	1998	1999	2000	2001	2002	2003
	Millions of dollars										
Receipts	810	778	783	765	824	849	844	914	1,070	1,238	1,427
United States	70	77	84	83	95	96	91	95	108	148	178
Other countries	740	701	698	682	729	753	754	819	963	1,090	1,248
Payments	515	595	668	700	715	776	889	982	1,175	1,098	1,064
United States	424	502	535	559	582	628	665	722	850	816	788
Other countries	91	93	133	140	133	148	225	260	325	282	275
Balance	295	183	114	65	109	73	-45	-68	-104	140	363
United States	-354	-425	-451	-476	-487	-532	-574	-627	-742	-667	-610
Other countries	649	608	565	542	596	605	529	559	638	807	973

Source: *Statistics Canada, CANSIM table 376-0031.*

9. Conclusions and recommendations

The ability of Canadian industry to become competitive on the world market depends increasingly on the acquisition of new skills and knowledge in the work place. To meet this need, a fairly large and diverse private, for-profit Education Services sector has emerged, offering specialized training alongside the traditional public education sector.

There is very limited statistical information on the private, for-profit Education Services sector. Statistics covering educational services as a whole may shed light on various trends, but it is often difficult to isolate the for-profit establishments.

A first step to filling this data gap is to achieve a consensus at the level of concepts and measurement objectives, recognizing that there is both a supply and demand component to this puzzle.

The following section draws on some of the recommendations in a report entitled, *The Education Services Sector in Canada: An introduction to the sector, issues and stakeholders,* Shipley (2002). In this paper, the author presents various questions that should be dealt with before survey work can begin.

9.1 Deciding what objectives should have priority

Given the diversity of the Education Services sector and the range of activities it encompasses, it is first necessary to prioritize the information needs of the parties involved, including federal departments, provincial departments, associations and private providers. These information needs include:

- The economic aspects of the sector, such as the contribution made by firms in this sector to the Canadian economy, the nature of the market in which they operate, international trade and the vitality of the sector. Decision-makers and industry players are also interested in firm dynamics (such as mergers, acquisitions, the influx of multinational corporations into the Canadian market).
- Employment levels, earnings and job stability of workers in the educational services field.
- The quality of education services provided by for-profit firms and outcomes for students, including such issues as the transferability of credits, the quality of program content, teaching standards, and skill enhancement resulting from participation in the educational programs offered by for-profit establishments.

The following list highlights the kind of statistics that various stakeholders would find useful in relation to the private, for-profit Education Services sector (drawn from Shipley 2002).

Stakeholders	Primary areas of concern
Human Resources and Skills Development Canada	Learning outcomes, access and equity, motivations, barriers, enrolments and participation, accreditation evaluation, employability, mobility, education-labour transitions, learning technologies, early/preschool learning, student debt
Industry Canada	Employment, revenues, expenses, competition, influx of multinationals, exporting education services, investment in the sector, learning technologies, e-commerce, human resources and technology management
Department of Foreign Affairs; International Trade Canada	Export of Canadian knowledge, skills, expertise and education related products and services abroad
Canadian Heritage (Official Languages, Cultural industries and Sports Canada)	Instruction in English or French as a second language, employment for cultural workers in the arts and sport/recreation, multimedia industries
Citizenship and Immigration Canada	Second language instruction for new immigrants, acculturation for new immigrants, international student flows; list of establishments offering educational services along with programs offered
Provincial Ministers of Education Training and/or Labour	Enrolments, transferability of certificates and diplomas, quality of curriculum content, teaching standards, working conditions
Public sector providers and affiliated associations	Loss of students, competition for revenues, accreditation and quality issues, teaching standards
Private, for-profit providers and affiliated associations	Teaching standards, costs, foreign competition, competition from the public sector
Unions	Pay and working conditions in the sector, member skill upgrading, access to learning
Academia	All pedagogical, social and economic aspects of the private/private, for-profit education and training sector
Employers	Evaluating private/private, for-profit sector education and training, where to invest in training for current employees, training outcomes (especially in productivity terms)
Canadian public	Knowing what is available, what to choose, the quality of curriculum content, costs, access to, employability after

9.2 Applicability of public education concepts

Most of the concepts and definitions applied to education and training in Canada are based on the nature of activities in public sector education. This section considers the applicability of key education concepts in a private, for-profit education context.

Full-time and part-time studies Enrolments in formal public sector education are typically presented in terms of full-time or part-time. These definitions tend to lose their traditional meaning when transferred from their public sector origins to the private, for-profit or workplace learning contexts. In these alternative learning environments training is of highly variable duration. For example, a course may be all day, five days a week for six weeks, all day one day a week for three months, half a day for three days and so on. Thus, full-time and part-time students (and consequently enrolment data) do not fit traditional interpretations.

Information on teaching staff and students For courses and workshops of shorter duration, staff are generally hired on an as needed basis and, therefore, staffing records are more fluid than is typically found in public institutions. In addition, private, for-profit sector enrolment information does not normally include the student's previous highest level of educational attainment (enrolment prerequisites are often not an issue in the private, for-profit sector) nor the student's age, sex, ethnicity or citizenship (unless on a student visa). The ability to compare staff and student data to public institutions would require that private, for-profit providers manage their record keeping in a more comprehensive manner.

Program/course definitions The definition of a program or course as applied to the public sector become somewhat blurred when transferred to the private, for-profit sector. Although many programs in the private, for-profit sector conform to the traditional interpretation, many do not. As an illustration, a program may consist of a series of sequential courses offered all day, 5 days a week but each course in the program may last only 1 month and the entire program may take less than 6 months. Adaptation of program/course terminology must be resolved before respondents from the private, for-profit sector are asked to provide information on what they offer.

Accreditation and outcomes. The wide range of certificates, diplomas, individual courses, learning contexts and the range of knowledge and skills developed through the offerings of private for-profit Education Services makes standardized evaluation difficult.

Methods of instruction. Technology has added a new dimension to how people learn. Distance education, or "distributive learning" covers a wider range of off-site learning situations including on-line and downloaded courses, CD-ROMs, cassette and video teaching materials, educational software packages, teleconferencing courses and courses offered through radio and television. Some distributive learning activities require a registration procedure and are structured like a classroom situation, while others can be downloaded or purchased independently. Distributive learning options must be taken into account when exploring methods of instruction and when discussing issues of access to education and training.

Catalogue no. 81-595-MIE2005033

Costs. Little statistical information is available on how much the general public and employers are spending on Education Services. The ability of firms to isolate costs of training as a secondary activity (as in workplace training) is uncertain. From the demand side, student fees must be related to the type of learning or skill development that takes place, and the duration of the training, in order to place investments in any kind of appropriate analytical context.

Motivations, barriers. Why students choose private, for-profit sector education over public sector education particularly for career preparation education and training? The perception is that the nature of skill development in the private, for-profit sector differs significantly from that in the public sector, is more "shop-floor" specific, and perhaps increases employability as a result. In some cases, students may evaluate the opportunity costs, and opt for private, for-profit programs because the duration is shorter. Current survey questions on motivation do not address the reasons why people choose private, for-profit education or training over public sector services.

Access and barrier issues, so pertinent to formal education, have equal relevance to the private, for-profit sector. Yet, the context may change significantly when one moves the question from the public sector to the private sector. For example, barriers to training in the workplace may be rooted more in employer factors than in employee factors.

9.3 Survey Frame Development

On the supply side, the Business Register is the best source to identify private, for-profit establishments whose primary activity is Education Services. However, survey work would be required to ensure that the Business Register entries for Educational Services are accurate and up to date. Like other sectors, Education Services are in constant state of flux, with establishments coming and going. Regular (for example, annual) survey work is a key aspect of maintaining a good frame.

On the demand side, participant surveys can be conducted using existing household survey frames. They can be independent household surveys which directly target education and training, as in the *Adult Education and Training Survey*. Training questions can also be included in other surveys, as in the *Survey of Labour and Income Dynamics* and the *Workplace and Employee Survey*.

9.4 Data Elements

The following is a proposed list of data elements.

Firm characteristics Ownership (Canadian, foreign), franchise/independent, headquarters location (Canada vs. foreign country), year established, province(s) of operations, type of provider (private, for-profit school, training institute, consulting firm), type of operations (seasonal, year-round, on demand), revenue, expenditures, clientele (individuals, private or public enterprises, etc.), partnerships, staffing.

Training and services provided Subject areas covered, completion requirements, types of programs/courses offered (custom vs. standard), fee schedule, duration, other services offered, teachers' qualifications, location of training activities (own or client's premises), teaching methods used (new learning technologies, on-line /distance education), teaching format used (group, one-on-one, independent), school facilities, language of training.

Student information (supply side) Enrolment, student characteristics (age, sex), admission requirements, number of foreign students, number of graduates (if appropriate), sector being served (major clients: general public, private/public sector), occupational groups being served, size of businesses served.

Participant characteristics (demand side) Age, sex, ethnicity, citizenship or visa status, highest level of educational attainment, income, subject area of training, qualifications received (if any), type of provider, methods of instruction used, location of training, costs, employer-support, duration, skills and knowledge developed, motivations, access, barriers, satisfaction, outcomes.

Appendix A: North American Industry Classification System: Educational Services Sector

The classification system that Statistics Canada uses to organize economic data by industry is the North American Industry Classification System (NAICS). NAICS was first developed in 1997 by the three trading partners under the North American Free Trade Agreement (NAFTA) in order to provide a common statistical framework that will facilitate analysis of the three economies. It was updated in 2002. The next update is planned for 2007.

Industry

An **industry** is a group of production entities that use similar production processes to create goods and services. These entities may take the form of corporations, mines, factories, unincorporated businesses, etc. Certain legal entities, such as multinational corporations, may produce such a vast range of different products that they are not useful for defining industries for the purpose of preparing production statistics. Nevertheless, most complex organizations are made up of small internal units, generally located in a single place, with relatively homogeneous output and relatively similar production processes and technology. These units may form the basis of a classification system.

The establishment has this function in enterprise statistics. While establishments may engage in a variety of activities, these are generally of limited scope, and a single activity tends to dominate. The activity associated with the highest value-added (that is, the value of the outputs minus the cost of the inputs) is considered as the establishment's "**principal activity**," and the establishment is classified to an industry corresponding to this principal activity.

It should be noted that the group of establishments that constitute an industry may vary over the years, owing to the creation of new establishments, the closure of establishments or simply a change in production processes. Statistics Canada periodically examines the classification of establishments to industries.

A given industry may produce goods that are not considered its principal product. This is a secondary activity. By the same token, some of the main products of this industry may also be manufactured by other industries.

As defined by NAICS 2002, the Educational Services sector comprises establishments primarily engaged in providing instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities and training centres. These establishments may be privately owned and operated, either for profit or not, or they may be publicly owned and operated.

Educational services are usually delivered by teachers who explain, tell, demonstrate, supervise and direct self-learning. Instruction is imparted in diverse settings, such as educational institutions, the workplace or the home (through correspondence, television or other means). The lessons can be adapted to the particular needs of the students; for example, sign language can replace verbal language for teaching students with hearing impairments. All industries in the sector share this commonality of process, namely, labour inputs of teachers with the requisite subject matter expertise and teaching ability.

The structure of NAICS takes the form of a hierarchical list of all economic activities in the country. The numbering system adopted by NAICS includes five levels and uses six-digit numerical coding. The first two digits designate the sector, the third digit designates the subsector, the fourth designates the group and the fifth designates the class. The sixth digit is used to designate national classes specific to each country. NAICS 2002 covers economic activities in 20 sectors and 928 Canadian industries.

The following is an abridged version of the Education Services sector in NAICS.

North American Industry Classification System: Educational Services Sector

61 Educational Services

Establishments primarily engaged in providing instruction and training in a wide variety of subjects. This instruction and training is provided by specialized establishments, such as schools, colleges, universities and training centres. These establishments may be privately owned and operated, either for profit or not, or they may be publicly owned and operated. They may also offer food and accommodation services to their students.

611 Educational Services

The subsector is structured according to the level and type of educational services provided.

6111 Elementary and Secondary Schools

This industry group comprises establishments primarily engaged in providing academic courses that comprise a basic preparatory education, that is, kindergarten through 12th grade.

6112 Community Colleges and C.E.G.E.P.s

This industry group comprises establishments primarily engaged in providing academic, or academic and technical, courses and granting associate degrees, certificates or diplomas that are below the university level. The requirement for admission to an associate or equivalent degree program is at least a high school diploma or equivalent general academic training.

6113 Universities

This industry group comprises establishments primarily engaged in providing academic courses and granting degrees at baccalaureate or graduate levels. The requirement for admission is at least a high school diploma or equivalent general academic training for baccalaureate programs, and often a baccalaureate degree for professional or graduate programs.

6114 Business Schools and Computer and Management Training

This industry group comprises establishments primarily engaged in providing courses in office procedures and secretarial and stenographic skills; conducting training in all phases of computer activities, including computer programming, software packages, computerized business systems, computer electronics technology, computer operations and local area network management; and offering an array of short-duration courses and seminars for management and professional development.

61141 Business and Secretarial Schools

This industry comprises establishments primarily engaged in providing courses in office procedures and secretarial and stenographic skills and may offer courses in basic computer skills, word processing, spreadsheets, and desktop publishing. In addition, these establishments may offer classes such as office machine operation, reception, communications, and other skills designed for individuals pursuing a clerical or secretarial career, or a career in court reporting.

Exclusion(s): Establishments primarily engaged in:

- providing business education at the degree level (61131, Universities)
- providing computer training (61142, Computer Training)

61142 Computer Training

This industry comprises establishments primarily engaged in conducting training in all phases of computer activities, including computer programming, software packages, computerized business systems, computer electronics technology, computer operations and local area network management. Instruction may be provided at the establishment's facilities or at an off-site location, including the client's own facilities.

Exclusion(s): Establishments primarily engaged in:

- computer wholesaling that includes computer training (41731, Computer, Computer Peripheral and Pre-Packaged Software Wholesaler-Distributors)
- computer retailing that includes computer training (44312, Computer and Software Stores)
- providing training in computer repair and maintenance (61151, Technical and Trade Schools)

61143 Professional and Management Development Training

This industry comprises establishments primarily engaged in providing an array of short-duration courses and seminars for management and professional development. Training may be provided directly to individuals or through employers' training programs. Career development and courses may be customized or modified to meet the special needs of customers. Instruction may be provided at the establishment's facilities or at an off-site location, including the client's own facilities.

Exclusion(s): Establishments primarily engaged in:

- providing human resource advisory services, but not providing training (54161, Management Consulting Services)
- academic degree granting (61131, Universities)

6115 Technical and Trade Schools

This industry group comprises establishments primarily engaged in providing vocational and technical training in a variety of technical subjects and trades. The training often leads to non-academic certification. Vocational correspondence schools are also included.

61151 Technical and Trade Schools

This industry comprises establishments primarily engaged in providing vocational and technical training in a variety of technical subjects and trades. The training often leads to non-academic certification. Vocational correspondence schools are also included.

Exclusion(s): Establishments primarily engaged in:

- secondary school education with technical and trade instruction (61111, Elementary and Secondary Schools)
- technical and trade instruction at the associate degree or equivalent level (61121, Community Colleges and C.E.G.E.P.s)
- registered nurses training at the associate degree level or equivalent (61121, Community Colleges and C.E.G.E.P.s)
- registered nurses training at the degree level (61131, Universities)
- business and secretarial training (61141, Business and Secretarial Schools)
- computer training (61142, Computer Training)
- professional and management development training (61143, Professional and Management Development Training)

6116 Other Schools and Instruction

This industry group comprises establishments primarily engaged in providing instruction in the fine arts; athletics and sports; languages; and other instruction (except academic, business, computer, management, and technical and trade instruction); and providing services, such as tutoring and exam preparation.

61161 Fine Arts Schools

This industry comprises establishments primarily engaged in providing instruction in the arts, including art (except private, for-profit and graphic arts), dance, drama, music and photography (except private, for-profit photography). Professional dance schools are also included.

Exclusion(s): Establishments primarily engaged in:

- providing high school education with fine arts instruction (61111, Elementary and Secondary Schools)
- fine arts instruction at the associate degree level (61121, Community Colleges and C.E.G.E.P.s)
- fine arts instruction at the degree level (61131, Universities)
- private, for-profit and graphic art and private, for-profit photography instruction (61151, Technical and Trade Schools)

61162 Athletic Instruction

This industry comprises establishments primarily engaged in providing instruction in athletic activities. Included are overnight and day sports instruction camps.

Exclusion(s): Establishments primarily engaged in:

- providing elementary or secondary education with sports instruction (61111, Elementary and Secondary Schools)
- sports instruction at the associate degree or equivalent level (61121, Community Colleges and C.E.G.E.P.s)
- sports instruction at the degree level (61131, Universities)
- operating sports and recreation facilities, in which athletic instruction is offered (7139, Other Amusement and Recreation Industries)
- operating overnight recreational camps, in which athletic instruction is offered as an incidental activity (72121, RV (Recreational Vehicle) Parks and Recreational Camps)

61163 Language Schools

This industry comprises establishments primarily engaged in providing courses in foreign language instruction. These establishments offer language instruction ranging from conversational skills for personal enrichment to intensive training courses for career or educational opportunities.

Exclusion(s): Establishments primarily engaged in:

- providing translation and interpretation services (54193, Translation and Interpretation Services)
- providing elementary or secondary education with language instruction (61111, Elementary and Secondary Schools)
- providing associate degree or equivalent education with language instruction (61121, Community Colleges and C.E.G.E.P.s)
- providing degree-level education with language instruction (61131, Universities)

611630 Language Schools

This Canadian industry comprises establishments primarily engaged in providing courses in foreign language instruction. These establishments offer language instruction ranging from conversational skills for personal enrichment to intensive training courses for career or educational opportunities.

61169 All Other Schools and Instruction

This industry comprises establishments, not classified to any other industry, primarily engaged in providing instruction services.

6117 Educational Support Services

This industry group comprises establishments primarily engaged in providing non-instructional services that support educational processes or systems.

61171 Educational Support Services

This industry comprises establishments primarily engaged in providing non-instructional services that support educational processes or systems.

Exclusion(s): Establishments primarily engaged in:

- job placement services (56131, Employment Placement Agencies)
- job training for the unemployed, underemployed, physically disabled, and persons who have a job market disadvantage because of lack of education or job skills (62431, Vocational Rehabilitation Services)

Source: *Statistics Canada (2003a).*

Appendix B: Classification of postsecondary institutions

The Statistics Canada's Centre for Education Statistics has published a proposed typology of postsecondary institutions, distinguishing between "public", "not-for-profit" or "for-profit." Four features are considered in classifying institutions accordingly: ownership, funding, accountability, and operating activities. Ownership is the primary distinction between "public" and "private." When ownership is not apparent, control—reflected in funding and accountability together—is the most important distinction.

For-profit institutions are motivated primarily by the intent to make a profit for the individuals or shareholders who control the institution. The profit may be paid to those individuals or shareholders in either regular or irregular payments and may be in the form of payments from operating income or as a capital gain. **Not-for-profit institutions** are motivated primarily by the wish to provide a service. They may be wholly owned by another non-profit organization such as a religious body (church).

	Public	Not-for-Profit	For-Profit
Constituting authority or Ownership	Public institutions are established or acquired by government.	Not-for-profit private institutions are established or acquired by a body normally established as a non-profit corporation or as a charity.	For-profit private institutions are established or acquired by individuals or shareholders under a *Corporation Act* with the intention of making a profit.
Control through Funding	Fifty percent (50%) or more of an institution's operating or capital funding is provided by government or a government body.	Forty-nine percent (49%) or less of an institution's operating or capital funding is provided by government or a government body.	Government funding is rarely involved except to purchase a service or to provide support to students.
Control through Accountability	The institution is accountable to government, usually annually, especially for funding.	The institution is accountable to a non-profit organization.	The institution is accountable to the owner(s).
Operating Activities	The institution does not operate for a profit. Borrowing requires government approval.	The institution does not operate for a profit. Borrowing does not require government approval.	The institution operates for a profit. Borrowing does not require government approval.
	It may be seen as providing programs as an agent of government or as implementing government policy by providing services for a collective benefit.	It provides programs for a collective benefit. Non-profit institutions can be expected to have most of these characteristics: legally constituted as non-profit organization or charity; exempt from income tax.	The institution sells goods and/or services to the public; is legally constituted as a business; pays income tax; and remits operating surplus to owner or shareholders.

Source: *Statistics Canada, 2003b.*

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Endnotes

1. "Private activities of public institutions" is a tough concept to measure, even if these types of activities truly exist.
2. In March 2005, a cost-recovery survey of private, for-profit establishments was being conducted with funding from the *Live, Learn and Succeed* initiative. This "Nature of Business" survey will provide a more robust count along with a limited amount of information about these institutions.
3. Since 1998, the *Act to Foster the Development of Manpower Training* (Bill 90) has been in full force and requires firms with payrolls exceeding $250,000 to invest at least 1% of their payroll in training. Quebec is the only province with legislation requiring firms to invest in training, but other jurisdictions have training incentives (tax credits, financial and non-financial assistance, etc.). (Statistics Canada and Human Resources Development Canada, 2003)
4. According to Statistics Canada and Human Resources Development Canada (2003), one possible explanation for these results is that the distinction between classroom and on-the-job training is somewhat artificial. To be recognized by the Act, training must be provided through a structured process. Such training can be given on the job. Thus, for locations subject to the Act, on-the-job training qualifies as classroom training under Quebec legislation and might be reported as such in WES. This would alter the composition of the training for Quebec locations, inflating participation in classroom training and under-estimating participation in on-the-job training.
5. Occupational data collected by the Labour Statistics Division of Statistics Canada follows the structural framework of the Standard Occupational Classification (SOC) of 1991. This classification provides a complete listing of all the categories under which Canadian jobs are classified and their descriptions. Starting in February 2005, occupational data collected from this Division will be coded according to the National Occupational Classification for Statistics 2001 (NOC-S 2001).
6. For a more detailed explanation, please refer to Statistics Canada's Catalogue number 15-547-XIE entitled: *Gross Domestic Product by Industry: Sources and Methods*, p.10.
7. The input-output accounts are based on all relevant surveys conducted by the Agency as well as on administrative data such as tax data from tax records, professional and other associations, industry organizations and non-government agencies for each province and territory.
8. The basic statistics are compiled from a combination of census and sample counts of travellers crossing the border, coupled with sample surveys to collect specific information from travellers, including their expenditures (Statistics Canada, 2002b).

Culture, Tourism and the Centre for Education Statistics

Research Papers

Cumulative Index

Statistics Canada's **Division of Culture, Tourism and the Centre for Education Statistics** develops surveys, provides statistics and conducts research and analysis relevant to current issues in its three areas of responsibility.

The **Culture Statistics Program** creates and disseminates timely and comprehensive information on the culture sector in Canada. The program manages a dozen regular census surveys and databanks to produce data that support policy decision and program management requirements. Issues include the economic impact of culture, the consumption of culture goods and services, government, personal and corporate spending on culture, the culture labour market, and international trade of culture goods and services. Its analytical output appears in the flagship publication *Focus on Culture* (www.statcan.ca/english/IPS/Data/87-004-XIE.htm) and in *Arts, culture and recreation – Research papers*.

The **Tourism Statistics Program** provides information on domestic and international tourism. The program covers the Canadian Travel Survey and the International Travel Survey. Together, these surveys shed light on the volume and characteristics of trips and travellers to, from and within Canada. Its analytical output appears in the flagship publication *Travel-log* (www.statcan.ca/english/IPS/Data/87-003-XIE.htm) and in *Travel and tourism – Research papers*.

The **Centre for Education Statistics** develops and delivers a comprehensive program of pan-Canadian education statistics and analysis in order to support policy decisions and program management, and to ensure that accurate and relevant information concerning education is available to the Canadian public and to other educational stakeholders. The Centre conducts fifteen institutional and over ten household education surveys. Its analytical output appears in the flagship publication *Education quarterly review* (www.statcan.ca/english/IPS/Data/81-003-XIE.htm), in various monographs and in *Education, skills and learning – Research papers* (www.statcan.ca/english/IPS/Data/81-595-MIE.htm).

Following is a cumulative index of Culture, Tourism and the Centre for Education Statistics research papers published to date

Research papers

81-595-MIE2002001	Understanding the rural-urban reading gap
81-595-MIE2003002	Canadian education and training services abroad: the role of contracts funded by international financial institution
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81-595-MIE2003004	Learning, earning and leaving – The relationship between working while in high school and dropping out
81-595-MIE2003005	Linking provincial student assessments with national and international assessments
81-595-MIE2003006	Who goes to post-secondary education and when: Pathways chosen by 20 year-olds
81-595-MIE2003007	Access, persistence and financing: First results from the Postsecondary Education Participation Survey (PEPS)
81-595-MIE2003008	The labour market impacts of adult education and training in Canada
81-595-MIE2003009	Issues in the design of Canada's Adult Education and Training Survey
81-595-MIE2003010	Planning and preparation: First results from the Survey of Approaches to Educational Planning (SAEP) 2002
81-595-MIE2003011	A new understanding of postsecondary education in Canada: A discussion paper
81-595-MIE2004012	Variation in literacy skills among Canadian provinces: Findings from the OECD PISA
81-595-MIE2004013	Salaries and salary scales of full-time teaching staff at Canadian universities, 2001-2002: final report
81-595-MIE2004014	In and out of high school: First results from the second cycle of the Youth in Transition Survey, 2002
81-595-MIE2004015	Working and Training: First Results of the 2003 Adult Education and Training Survey
81-595-MIE2004016	Class of 2000: Profile of Postsecondary Graduates and Student Debt
81-595-MIE2004017	Connectivity and ICT integration in Canadian elementary and secondary schools: First results from the Information and Communications Technologies in Schools Survey, 2003-2004

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Research papers

81-595-MIE2004018	Education and labour market pathways of young Canadians between age 20 and 22: an Overview
81-595-MIE2004019	Salaries and salary scales of full-time teaching staff at Canadian universities, 2003-2004
81-595-MIE2004020	Culture Goods Trade Estimates: Methodology and Technical Notes
81-595-MIE2004021	Canadian Framework for Culture Statistics
81-595-MIE2004022	Summary public school indicators for the provinces and territories, 1996-1997 to 2002-2003
81-595-MIE2004023	Economic Contribution of Culture in Canada
81-595-MIE2004024	Economic Contributions of the Culture Sector in Ontario
81-595-MIE2004025	Economic Contribution of the Culture Sector in Canada – A Provincial Perspective
81-595-MIE2004026	Who pursues postsecondary education, who leaves and why: Results from the Youth in Transition Survey
81-595-MIE2005027	Salaries and salary scales of full-time teaching staff at Canadian universities, 2002-2003: final report
81-595-MIE2005028	Canadian School Libraries and Teacher-Librarians: Results from the 2003/04 Information and Communications Technologies in Schools Survey
81-595-MIE2005029	Manitoba postsecondary graduates from the Class of 2000 : how did they fare?
81-595-MIE2005030	Salaries and salary scales of full-time teaching staff at Canadian universities, 2004-2005: preliminary report
81-595-MIE2005031	Salaries and salary scales of full-time teaching staff at Canadian universities, 2003-2004: final report
81-595-MIE2005032	Survey of Earned Doctorates: A Profile of Doctoral Degree Recipients
81-595-MIE2005033	The Education Services Industry in Canada